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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Christoph Brabec

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EXAMINER

MOWLA, GOLAM

ART UNIT

PAPER NUMBER

1795

NOTIFICATION DATE

DELIVERY MODE

07/09/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Office Action Summary	Application No. 10/522,862	Applicant(s) BRABEC, CHRISTOPH	
	Examiner Golam Mowla	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05/19/2008, Amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/21/2008</u> | 6) <input type="checkbox"/> Other: _____ |

FINAL ACTION

Response to Amendment

1. Applicant's amendment of 05/17/2008 does not render the application allowable.

Status of Objections and Rejections

2. All objections from the previous office Action are withdrawn in view of Applicant's amendment.
3. All rejections from the previous office Action are withdrawn in view of Applicant's amendment. New grounds of rejection under 35 U.S.C. 112 and 35 U.S.C. 103 (a) are necessitated by the amendments.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1-4, 8-14, and 18 are rejected under 35 U.S.C. 103(1) as being unpatentable over Ou (US PG PUB 2002/0088863, as cited in the previous Office Action) in view of Loutfy et al. (US 4175982).

As to claim 1, Ou discloses a chip card (IC card 1, fig. 1) comprising an energy converter (solar battery 12, fig. 1) that occupies a portion of the surface area of the chip card (see fig. 1), so that an energy supply of the chip card is integrally present thereon (paragraph 0019). Ou further discloses that the energy converter is a

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photovoltaic cell (solar battery 12, which inherently comprises solar/photovoltaic cell).

However, Ou is silent as to whether the solar/photovoltaic cell comprises a photovoltaically active polymeric compound.

Loutfy discloses a photovoltaic cell (1; see fig. 1) (see title and abstract; photovoltaic cell is inherently an energy converter as it converts light into electricity) wherein the cell (1) comprises a photoactive layer (3; fig. 2; col. 3, lines 16-19) wherein the photoactive layer includes a photovoltaically active polymeric compound (metal-free phthalocyanine; col. 3, lines 15-45). Loutfy utilizes a photovoltaically active polymeric compound in the photovoltaic cell because it reduces the cost (col. 1, lines 7-15; and col. 2, lines 33-36) and at the same time increases the conversion efficiency (col. 2, lines 37-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the photovoltaic cell of Loutfy in the chip card of Ou, because of the reduced cost and increased conversion efficiency, as taught by Loutfy.

As to claim 2, Ou further discloses that the energy converter is a photovoltaic cell (solar battery 12, which inherently comprises solar/photovoltaic cell).

As to claim 3, Ou in view of Loutfy teaches that the photovoltaic cell is a polymer solar cell (the energy converter includes a photovoltaically active polymeric compound, as discussed above for claim 1).

As to claim 4, Ou further discloses that the energy converter covers (12) part of the front side of the chip card (1) (see fig. 1).

As to claim 8, Ou further discloses that the energy converter (12) is producible directly on the chip card (1) (see fig. 1, and paragraph 0020).

As to claims 9 and 11, Ou discloses an article, comprising:

- a chip card (IC card 1, fig. 1) having a surface; and
- a photovoltaic/solar cell (solar battery 12, which inherently comprises solar/photovoltaic cell) supported by a portion of the surface of the chip card (1) (see fig. 1).

However, Ou is silent as to whether the photovoltaic cell comprises a photovoltaically active polymeric compound.

Loutfy discloses a photovoltaic cell (1; see fig. 1) (see title and abstract; photovoltaic cell is inherently an energy converter as it converts light into electricity) wherein the cell (1) comprises a photoactive layer (3; fig. 2; col. 3, lines 16-19) wherein the photoactive layer includes a photovoltaically active polymeric compound (metal-free phthalocyanine; col. 3, lines 15-45). Loutfy utilizes a photovoltaically active polymeric compound in the photovoltaic cell because it reduces the cost (col. 1, lines 7-15; and col. 2, lines 33-36) and at the same time increases the conversion efficiency (col. 2, lines 37-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the photovoltaic cell of Loutfy in the article of Ou, because of the reduced cost and increased conversion efficiency, as taught by Loutfy.

As to claim 10, Ou further discloses that photovoltaic cell (12) acts as an energy supply for the chip card (1) (see paragraph 0020).

As to claim 12, Ou in view of Loutfy teaches that the photovoltaic cell is a polymer solar cell (the photovoltaic cell includes a photovoltaically active polymeric compound, as discussed above for claim 9).

As to claim 13, Ou further discloses that the photovoltaic cell (12) is integral with the chip card (1) (see fig. 1, which shows that solar battery 12 is integrated with the chip card; see also 0019).

As to claim 14, Ou further discloses that the photovoltaic cell (12) is disposed on the chip card (1) (see fig. 1 and paragraph 0019). In addition, instant claim is a product-by-process claim. Therefore, the claim is not limited to the manipulation of the recited method of disposing the photovoltaic cell on the chip card such as printing. The determination of patentability is based on the product, and not on the method (method of disposing the photovoltaic cell on the chip card such as printing method) of making the product. See MPEP 2113 [R-I] Product-by-Process Claims. See also *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964,966 (Fed. Cir. 1985).

As to claim 18, Ou further discloses that the article further comprise a display unit (display screen 11, fig. 1, paragraph 0019).

6. Claims 5-6, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ou in view of Loutfy as applied to claims 1 and 9 above, and further in view of Hirano (US 4104083, as cited in previous Office Action).

As to claims 5-6, 15, and 17, Ou in view of Loutfy discloses a chip card or an article, as discussed above for claims 1 and 9. However, both of the references are silent as to whether the photovoltaic cell is semitransparent and/or opaque.

It is well known in the photovoltaic art to utilize a semitransparent or opaque photovoltaic cell to improve the weatherability of the photovoltaic cell. Hirano discloses a solar battery package wherein the back layer comprises an opaque or semitransparent material (see abstract, and Col. 4, lines 8-19). Hirano uses opaque or semitransparent layer in the solar battery because it allows for an improved weatherability (see abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the opaque or semitransparent photovoltaic cell of Hirano in the chip card or article of Ou in view of Loutfy, because it allows for an improved weatherability, as taught by Hirano.

7. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ou in view of Loutfy as applied to claims 1 and 9 above, and further in view of Kan et al. (JP 2001-203377A, refer to machine translation, as cited in previous Office Action).

As to claims 6 and 16, Ou in view of Loutfy discloses a chip card or an article, as discussed above for claims 1 and 9. However, both of the references are silent as to whether the photovoltaic cell is colored.

It is well known in the photovoltaic art to utilize a coloring matter in the photovoltaic cell to increase the mechanical strength. Kan discloses a photovoltaic cell

(photoelectric conversion device, see title and abstract) wherein coloring matter (4, fig. 1) is added to the semiconductor layers to enhance the mechanical strength (see abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the colored photovoltaic cell of Kan in the chip card or article of Ou in view of Loutfy, because it allows for an enhanced mechanical strength, as taught by Kan.

8. Claims 7 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ou in view of Loutfy as applied to claims 1 and 9 above, and further in view of Phillipps (GB 2320356A, listed in IDS, also used in previous Office Action).

As to claim 7, Ou in view of Loutfy discloses a chip card, as discussed above for claim 1. Ou further discloses that the chip card (1) further comprises an energy converter (12) and a display unit (display screen 11) (see also fig. 1 and paragraph 0019). However, Ou is silent as to whether the photovoltaic cell is applied over the display unit.

It is well known in the art to apply the photovoltaic cell over the display unit. Phillipps discloses a combined liquid crystal display and photovoltaic converter wherein the photovoltaic cell is applied over the display unit (see fig. 2; see also Page 1, lines 14-20, and page 4, lines 6-9). Phillipps applies the photovoltaic cell over display unit because such placement of photovoltaic cell is conventional in the art to provide the support.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply the photovoltaic cell of Ou in view Loutfy over the display unit of Ou because such placement of photovoltaic cell is conventional in the art to provide the support, as shown by Phillipps.

As to claim 19, Ou in view of Loutfy discloses an article, as discussed above for claim 9. Ou further discloses that the article further comprises a photovoltaic cell (12) and a display unit (display screen 11) (see also fig. 1 and paragraph 0019). However, Ou is silent as to whether the photovoltaic cell is supported by the display unit.

It is well known in the art to apply the photovoltaic cell over the display unit so that the photovoltaic cell is supported by the display unit. Phillipps discloses a combined liquid crystal display and photovoltaic converter wherein the photovoltaic cell is applied over the display unit (see fig. 2; see also Page 1, lines 14-20, and page 4, lines 6-9) to provide support for it. Phillipps applies the photovoltaic cell over display unit because such placement of photovoltaic cell is conventional in the art to provide the support to it.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the photovoltaic cell of Ou in view of Loutfy over the display unit of Ou to provide support for it, as it is conventional in the art, as shown by Phillipps.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ou in view of Loutfy as applied to claim 9 above.

Ou in view of Loutfy discloses an article addressing all the structural limitations of claim 9 (see above). Ou further discloses that the photovoltaic cell (12) is mounted on the chip card (1) (see fig. 1; and paragraph 0019). However, Ou is silent as to whether the photovoltaic cell is integral with the chip card.

It is well known in the art to integrate a part of the device over another part. See MPEP 2144.04 – Making Integral. “The use of a one piece construction instead of the structure disclosed in [the prior art] would be merely a matter of obvious engineering choice” – MPEP 2144.04. See also *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965).

Therefore, it would have been obvious to one ordinary skill in the art the time of the invention was made to integrate the photovoltaic cell of Ou in view of Loutfy into the chip card of Ou to prevent the photovoltaic cell deterioration.

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ou in view of Loutfy as applied to claim 9 above, and further in view of Suzuki (US 4801787, as cited in previous Office Action).

Ou discloses an article comprising a chip card, as discussed above for claim 9. However, Ou is silent as to whether the chip card is selected from credit or security cards.

It is well known in the chip card art that credit or security card is a type of chip card as disclosed by Suzuki (Col. 1, lines 7-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the credit card of Suzuki as the chip card in the article of Ou, because it conventional in the art to use credit card as the chip card, as taught by Suzuki.

Response to Arguments

11. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments are directed towards the amended claims 1-20 which cover articles containing a photovoltaically active polymeric compound. Applicant argues that "none of the six cited references, either alone or in any combination, discloses or renders obvious such an article." Examiner agrees that the references do not teach a photovoltaically active polymeric compound, and therefore new grounds of rejections (Ou in view Loutfy) are provided (see above).

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence/Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GOLAM MOWLA whose telephone number is (571) 270-5268. The examiner can normally be reached on M-F, 0900-1700 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ALEXA NECKEL can be reached on (571) 272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 1795

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